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Office of the Chief Electrical Engineer,

D.O.No.467/2 letters. Bangalore 12/13th July 1935.

VII INSTALLATION.

DOC 156 G.P.H

Dear Sir Albion Banerji,

I am enclosing here with,in original,two letters from Sir Alfred Dickinson dated the 18th and 28th June 1935 and would be glad if you would kindly return them to me with your instructions hereon.

2. The letter of the 18th June constitutes Sir Alfred's opinion on the 7th installation proposal.

Sir Alfred is evidently not aware that the Krishnarajasagara Dam was designed and intended to have a height of 124' above the bed level,and in my reply to him,I will explain this point more carefully,so that he will not be under any misapprehension.

3. Sir Alfred suggests that we assume an all round efficiency of 75%,but we have found,from actual experience at Sivasamudram, under the conditions under which we operate our new turbines,that we get an overall efficiency of 80% or better.

4. With reference to the diameter of the pipeline,I agree with Sir Alfred Dickinson that an increase in the diameter would improve the reliability of the operation of the turbines to some extent,but the diameters have been very carefully figured out and considered with reference to the costs and operating characteristics and I would take this opportunity to say that these diameters selected by me,are considered efficient by the turbine manufacturers,and in one case,a smaller diameter than that selected by me has been suggested.

5. The suggestion as to the radius of the bends in the pipeline will be very carefully observed and the largest radius possible will be used,and of course,the anchorages,which he mentions, have been very carefully figured out and will be checked before actual construction.

6. Sir Alfred Dickinson refers to the raising of the dam at Sivasamudram to 126'. This point I do not understand and will write him on this question.

7. With reference to the -ton crane to be installed at

at Sivasamudram, I have ascertained that the weights to be handled are such that the capacity of the crane will have to be increased to 45 tons.

7. The capacity of the transformers, as suggested by Sir Alfred have been very carefully considered and will take care of the increased generator capacity under all conditions of operation.

8. With reference to Sir Alfred's remarks on the Transmission Line, I would say that the design adopted has very carefully been considered and we have actually put up some of the structures and I am quite sure that they are amply strong for our purpose. I am, however, making arrangements for testing one or two of the structures in the course of time to prove their strength and reliability.

With reference to the suggestion that cast-iron screw piles may be substituted for stone blocks, I would say that the method proposed is much cheaper and is entirely reliable as we have been using this method for a good many years both on the Kolar and Bangalore Transmission Lines. As a matter of fact, this is our standard method of fixing guy wires in the ground.

9. As regards the estimates, I have, as far as possible, followed the suggestion of calling for preliminary tenders for the double purpose of obtaining the current day prices and the latest details of design and performance of the several types of apparatus required.

So far as the local costs are concerned, I have, as explained to you the other day, worked out the cost of mas nry, excavation and so forth and at the same time had the various standard rates of the P.W.D. for comparison and have based the estimates on the result of these calculations and comparison.

10. As regards the spare parts for the new plant, I would say that all spares should be charged to operation and maintenance and will, therefore, be ordered on separate orders, so as to eliminate any confusion. Sir Alfred's suggestion in this connection is based on the practice in England and United States of charging the first set of spares to Capital, while our procedure out here is to charge all such spare parts to revenue and would, therefore, not appear in the Capital estimates.

11. With reference to the letter of the 6th June, I would say

...t bill and Dinkinson's terms for examining the report as based on the condition that it was similar to the examination of the 6th installation, but the 7th installation proposals, submitted to him, contained several items not shown in the 6th installationproposals, such as the transmission Line, receiving Station at M.F.and the receiving Station in England. Sir Alfred has written, one into the proposals as submitted to him carefully and has expressed his opinion in some detail but I would suggest that the fee be increased from 100 guineas to 200 guineas, especially as he says that the salaries paid to his assistants have far exceeded the fee of 100 guineas.

Yours sincerely,

Sd/- S.S.Forbes.

To:-

Major Entrad Marine
Sir [illegible], K.B.E., C.S.I., C.I.E., I.C.S.,
Indian Institute, Bangalore.